

with breast cancer in the UK NHS. **METHODS:** A previously published decision tree model was populated and developed with the Vial et. al. and Brown et. al. trial data to assess the cost-effectiveness of using branded Taxotere<sup>®</sup> versus its generic counterpart docetaxel from the UK NHS perspective. **RESULTS:** If the branded Taxotere<sup>®</sup> was promoted as the first-line therapy, it would cost the UK NHS £411.54 per vial per patient with 0.434 QALY (Quality-Adjusted Life Years) gain compared to £412.98 with 0.418 QALY gain if the generic docetaxel was promoted instead and failed the therapy. Although the acquisition cost of docetaxel is more than 50% less than that of Taxotere<sup>®</sup>, promoting the generic docetaxel based on its lower acquisition cost, only, would result in increasing the total health care cost compared to Taxotere<sup>®</sup>. **CONCLUSIONS:** Based on the decision tree model generated in this study, promoting the branded Taxotere<sup>®</sup> is more cost-effective compared to its generic counterpart docetaxel. This should be considered for implementation in practice and for future guidelines.

## PCN46

# COST-EFFICACY ANALYSIS OF LICENSED DRUGS FOR THE TREATMENT OF METASTATIC CASTRATE RESISTANT PROSTATE CANCER POST DOCETAXEL BASED ON HOSPITAL DRUG EVALUATION METHODOLOGY IN SPAIN

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**OBJECTIVES:** To estimate which is the dominant treatment between the only two drugs that had been able to demonstrate overall survival (OS) improvements in patients with metastatic castrate resistant prostate cancer (mCRPC) that have progressed on or after docetaxel treatment, and that were approved by the EMA in 2011 (AA by accelerated procedure): cabazitaxel (CBZ) and abiraterone acetate (AA). **METHODS:** We replicated the methodology most commonly used by Spanish hospitals to estimate the cost-efficacy of oncologic drugs (OS gains and incremental costs vs. those of comparators) by: (i) taking the perspective of the Spanish NHS (ii) estimating treatment costs based on the product labels (i.e. main medication, co-medication, premedication, and primary prophylaxis) at ex-factory prices, and the cost of administering such medications; and (iii) the OS data from the respective pivotal phase III trials: for CBZ vs. mitoxantrone + prednisone (MP) OS was 15.1 vs. 12.7 months. For AA vs. placebo + prednisone (PP) OS was 15.8 vs. 11.2. Input for the base case analysis comes from Phase III randomized clinical trials and from publicly available cost data. Sensitivity analysis was performed on: (i) length of treatment; (ii) median OS; and (iii) G-CSF usage and drug administration costs. **RESULTS:** In our base case scenario the cost per cycle of CBZ was 4,711.52€ vs. 78.20€ for MP. The cost per cycle of AA was 3,179.26€ vs. 11.85€ for PP. Treatment costs difference for CBZ vs. MP is 27,799.93€ (range 13,665.36€ – 46,646.01€) and for AA vs. PP is 25,386.71€ (range 12,669.65€ – 38,103.76€). OS gain is 2.4 months for CBZ and 4.6 months for AA. **CONCLUSIONS:** In Spain, based on local hospital methodology, AA would be the dominant alternative (higher OS gain and lower incremental cost) to treat mCRPC patients that have progressed on or after a docetaxel based regime.

## PCN47

# COST-OF-ILLNESS OF COMMON CANCER TYPES - RESULTS OF A HEALTH INSURANCE CLAIMS DATA ANALYSIS

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**OBJECTIVES:** In Germany, health economic studies are increasingly based on health insurance claims data analysis. Such data offer a wide range of scientific applications, especially when focusing on the assessment of resource utilization patterns and costs. The objective of our study was to estimate the direct health care costs of three frequent types of cancer (colorectal, breast, and prostate cancer) from a third-party payer perspective using longitudinal data from a German statutory health insurance fund and employing a matched pairs design. **METHODS:** Our analysis is based on administrative data of a German sickness fund covering a 5-year period (2005–2009). A total of 42,085 cancer patients were included. Disease-specific costs were estimated by matching cancer patients to counterparts without the particular condition and subsequently comparing the costs of the two groups. One-to-one matching was performed by application of the propensity score method to balance patient characteristics among the cancer groups and non-cancer controls. The cost categories considered in this study included prescription drug costs, outpatient visit costs, and hospitalization costs. **RESULTS:** The mean cancer-associated 5-year costs per patient amounted to €5,429 for colorectal cancer, €3,200 for breast cancer, and €5,350 for prostate cancer. The average disease-attributable costs of the first year following diagnosis were €8,750, €4,300, and €4,750 for colorectal, breast and prostate cancer, respectively. Corresponding excess costs of the last year of life were €15,900, €10,950, and €14,750. Costs associated with hospitalization accounted for a major part of the total disease-specific costs (up to 80%). **CONCLUSIONS:** This cost-of-illness study based on claims data analysis confirms the high economic burden of colorectal, breast, and prostate cancer. Most of the costs occurred in the initial and terminal treatment phases. Inpatient treatment was found to be the main cost driver.

## PCN48

# THE COST OF TREATING PENILE CANCER IN ENGLISH HOSPITALS: PRELIMINARY RESULTS USING THE HOSPITAL EPISODES STATISTICS (HES) DATABASE

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Incidence of penile cancer in Europe is slightly increasing. Survival rates in penile cancer are good, however, there is little research into treatment costs. **OBJECTIVES:**

To estimate the cost of treating penile cancer in English hospitals, using data from the HES database. This investigation is part of a wider project aimed at quantifying the total economic burden of penile cancer in the UK. **METHODS:** Inpatient admissions for penile cancer between the years 2006/07 to 2010/11 were retrospectively analysed. Data was obtained from HES, a database covering English hospital activity, with inpatient episodes aggregated into spells of care associated with a specific Healthcare Resource Group (HRG). The HRGs were linked to costs from the UK National Tariff in order to calculate the average annual and per patient payments for inpatient treatment of penile cancer, as per the NHS Payment by Results framework. Where necessary, costs were supplemented by expert opinion and other published cost estimates. A limited amount of HES data on outpatient consultations was also collected and analysed. **RESULTS:** The mean annual amount paid to English hospitals for inpatient treatment of invasive penile cancer in England was estimated to be £2,391,700, with a further £189,106 paid for carcinoma in situ of the penis. Per inpatient, mean costs were approximately £3,743 and £1,323 for invasive penile cancer and carcinoma in situ, respectively. Outpatient costs were considerably lower, due to the majority of care being delivered in an inpatient setting and issues with HES outpatient data collection. Further research into outpatient costs is currently ongoing. **CONCLUSIONS:** The burden of penile cancer in the UK has cost implications, the full extent of which cannot yet be ascertained due to underestimation of outpatient costs. Any preventive intervention aimed at decreasing this burden should be carefully considered.

## PCN49

# ECONOMIC BURDEN OF MELANOMA IN RUSSIA

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**OBJECTIVES:** To estimate the costs associated with melanoma for Russia in 2009. **METHODS:** Prevalence-based cost-of-illness analysis (COI) was performed from the payer's point of view (national and regional governments). Direct medical costs (hospital and outpatient services and drugs provided in outpatient care), non-medical costs (monetary payments in social benefits) and indirect costs (projected productivity loss due to sickness and disability) associated with melanoma in Russia in 2009 were calculated. We obtained the data for analysis from the national statistics, regional cancer and prescription registries, expert panel interviews and literature. The costs were calculated for the total population of melanoma patients in Russia. To calculate direct medical costs, we used national reimbursement rates per unit of care (1 hospital day or 1 visit to an out-patient oncology clinic) and regional data on melanoma drug costs. To access non-medical costs, we used data on social benefits expenditures. Indirect costs were estimated with friction costs method. **RESULTS:** The total costs of melanoma in Russia in 2009 was 771.2 million RUR (€18.8mln), or 11 314 RUR (€275.9) as average cost per patient per year. Almost half of total costs (48.3%) occur in patients during the 1<sup>st</sup> year after diagnosis. The direct medical costs accounted for 52.41% of total spending, direct non-medical costs – for 34.9%, and indirect costs – for 12.69%. Direct medical costs represented 72.8% of total spending in melanoma patients within the 1<sup>st</sup> year after the diagnosis; during the subsequent years after the diagnosis this number reduces to 34.2%. **CONCLUSIONS:** Our analysis demonstrates that the most significant part of medical costs for melanoma occur during the 1<sup>st</sup> year after diagnosis that corresponds with the results of other COI studies in oncology; in subsequent years the main costs are outside the scope of health care system.

## PCN50

# TREATMENT PATTERNS, HEALTH CARE UTILIZATION, AND COSTS OF OVARIAN CANCER IN CENTRAL AND EASTERN EUROPE USING A DELPHI PANEL BASED ON A RETROSPECTIVE CHART REVIEW

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**OBJECTIVES:** Despite the considerable disease burden of ovarian cancer (OC), there were no cost studies in Central and Eastern Europe. This study aimed to describe treatment patterns, health care resource utilization and costs associated with OC in Hungary, Poland, Serbia and Slovakia. **METHODS:** Overall clinical practice for management of epithelial ovarian cancer was investigated through a three-round Delphi panel consisting of 15 clinical experts. Experts completed a survey based on patient records (N=1,542). The survey was developed based on clinical guidelines and the FIGO Annual Report. Means, ranges and outlier values were discussed with the experts during a telephone interview. Finally, consensus estimates were obtained in face-to-face workshops. Based on these results, overall cost of OC was estimated using a Markov model. **RESULTS:** The patients included in the chart review were followed from pre-surgical diagnosis and in each phase of treatment, i.e. primary surgical staging and surgery, chemotherapy and chemotherapy monitoring, follow-up and palliative care. Overall treatment patterns were similar but regimens in second and subsequent lines of chemotherapy varied across the countries. The